



PATENT  
Customer No. 22,852  
Attorney Docket No. 9140.0014-00

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: )  
)  
DEMARAY, Richard E. et al. ) Group Art Unit: 1731  
)  
Application No.: 09/903,081 ) Examiner: HOFFMAN, John M.  
)  
Filed: July 10, 2001 )  
) Confirmation No.: 1225  
For: AS-DEPOSITED PLANAR OPTICAL )  
WAVEGUIDES WITH LOW SCATTERING )  
LOSS AND METHODS FOR THEIR )  
MANUFACTURE )

**MAIL STOP RCE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)**

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicants bring to the attention of the Examiner the documents on the attached listing. This Information Disclosure Statement is being filed before the mailing date of a first Office Action after the filing of a Request for Continued Examination in the above-referenced application.

Copies of the listed foreign and non-patent literature documents are attached. Copies of the U.S. patents and patent publications are not enclosed.

Applicants respectfully request that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or

constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicants determine that the cited documents do not constitute "prior art" under United States law, Applicants reserve the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

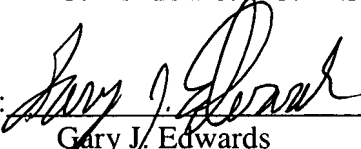
Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.

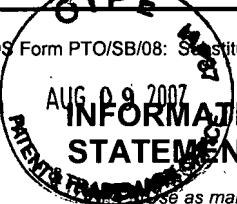
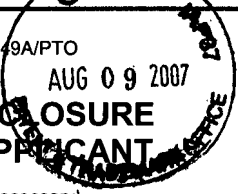
Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: August 9, 2007

By:   
\_\_\_\_\_  
Gary J. Edwards  
Reg. No. 41,008

|                                                   |
|---------------------------------------------------|
| <b>EXPRESS MAIL LABEL NO.<br/>EV 943276912 US</b> |
|---------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |   |                     |   |                   |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------|---|-------------------|--|
| <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>IDS Form PTO/SB/08: Substitute for form 1449A/PTO</p> <p style="font-size: 1.2em; font-weight: bold;">INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</p> <p style="font-size: 0.8em;">(Use as many sheets as necessary)</p> |   |                     |   | Complete if Known |  |
| Application Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |   | 09/903,081          |   |                   |  |
| Filing Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |   | July 10, 2001       |   |                   |  |
| First Named Inventor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   | DEMARAY, Richard E. |   |                   |  |
| Art Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   | 1731                |   |                   |  |
| Examiner Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |   | HOFFMAN, John M.    |   |                   |  |
| Attorney Docket Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   | 9140.0014-00        |   |                   |  |
| Sheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1 | of                  | 3 |                   |  |

| U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS |                       |                                          |                                         |                                                 |                                                                           |
|-----------------------------------------------------|-----------------------|------------------------------------------|-----------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------|
| Examiner Initials                                   | Cite No. <sup>1</sup> | Document Number                          | Issue or Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|                                                     |                       | Number-Kind Code <sup>2</sup> (if known) |                                         |                                                 |                                                                           |
|                                                     |                       | US 2001/0031122 A1                       | 10-18-2001                              | Lackritz et al.                                 |                                                                           |
|                                                     |                       | US-2002/0191916 A1                       | 12-19-2002                              | Frish et al.                                    |                                                                           |
|                                                     |                       | US 2003/0185266 A1                       | 10-02-2003                              | Henrichs                                        |                                                                           |
|                                                     |                       | US-2005/0175287 A1                       | 08-11-2005                              | Pan et al.                                      |                                                                           |
|                                                     |                       | US 2005/0183946 A1                       | 08-25-2005                              | Pan et al.                                      |                                                                           |
|                                                     |                       | US 2006/0057283 A1                       | 03-16-2006                              | Zhang et al.                                    |                                                                           |
|                                                     |                       | US 4,710,940                             | 12-01-1987                              | Sipes, Jr.                                      |                                                                           |
|                                                     |                       | US 4,785,459                             | 11-15-1988                              | Baer                                            |                                                                           |
|                                                     |                       | US 6,236,793 B1                          | 05-22-2001                              | Lawrence et al.                                 |                                                                           |
|                                                     |                       | US 6,288,835 B1                          | 09-11-2001                              | Nilsson et al.                                  |                                                                           |
|                                                     |                       | US 6,452,717 B1                          | 09-17-2002                              | Endo                                            |                                                                           |
|                                                     |                       | US 6,760,520 B1                          | 07-06-2004                              | Medin et al.                                    |                                                                           |
|                                                     |                       | US 6,884,327 B2                          | 04-26-2005                              | Pan et al.                                      |                                                                           |

**Note: Submission of copies of U.S. Patents and published U.S. Patent Applications is not required.**

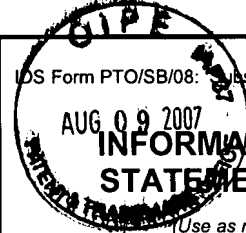
| FOREIGN PATENT DOCUMENTS |                       |                                                                                 |                                |                                                 |                                                                           |                          |
|--------------------------|-----------------------|---------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------|---------------------------------------------------------------------------|--------------------------|
| Examiner Initials        | Cite No. <sup>1</sup> | Foreign Patent Document                                                         | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | Translation <sup>6</sup> |
|                          |                       | Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                |                                                 |                                                                           |                          |
|                          |                       | JP 7-224379 A                                                                   | 8/22/1995                      | Ulvac Japan Ltd                                 |                                                                           |                          |
|                          |                       | KR 2003-0088236<br>(Appl. No. KR 2002-26187)                                    | 11-19-2003                     | Hyundai Motor Co Ltd                            |                                                                           | Abstract                 |
|                          |                       | WO 01/82297 A1                                                                  | 11/1/2001                      | Koninklijke Philips Electronics N.V.            |                                                                           |                          |

| NON PATENT LITERATURE DOCUMENTS |                       |                                                                                                                                                                                                                                                                 |                          |
|---------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Examiner Initials               | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | Translation <sup>6</sup> |
|                                 |                       |                                                                                                                                                                                                                                                                 |                          |
|                                 |                       | AGRAWAL, G.P., in: Fiber-Optic Communication Systems, 2nd Edition, John Wiley & Sons, New York, pp. 361-399 and 415 (1997).                                                                                                                                     |                          |
|                                 |                       | ALDER, T. et al., "High-Efficiency Fiber-to-Chip Coupling Using Low-Loss Tapered Single-Mode Fiber," IEEE Photonics Tech. Lett. 12(8):1016-1018 (August 2000).                                                                                                  |                          |

|                    |  |                 |  |
|--------------------|--|-----------------|--|
| Examiner Signature |  | Date Considered |  |
|--------------------|--|-----------------|--|

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**EXPRESS MAIL LABEL NO.**  
**EV 943276912 US**

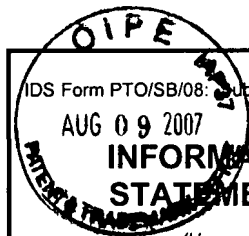
|                                                                                                                                                                                                                                |   |    |                          |                        |              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----|--------------------------|------------------------|--------------|
|  US Form PTO/SB/08: Substitute for form 1449A/PTO<br><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b><br>(Use as many sheets as necessary) |   |    | <b>Complete if Known</b> |                        |              |
|                                                                                                                                                                                                                                |   |    | Application Number       | 09/903,081             |              |
|                                                                                                                                                                                                                                |   |    | Filing Date              | July 10, 2001          |              |
|                                                                                                                                                                                                                                |   |    | First Named Inventor     | DEMARAY, Richard E.    |              |
|                                                                                                                                                                                                                                |   |    | Art Unit                 | 1731                   |              |
|                                                                                                                                                                                                                                |   |    | Examiner Name            | HOFFMAN, John M.       |              |
| Sheet                                                                                                                                                                                                                          | 2 | of | 3                        | Attorney Docket Number | 9140.0014-00 |

| NON PATENT LITERATURE DOCUMENTS |  |                                                                                                                                                                                                                                                     |  |
|---------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                 |  | BORSELLA, E. et al., "Structural incorporation of silver in soda-lime glass by the ion-exchange process: A photoluminescence spectroscopy study," Applied Physics A 71:125-132 (January 7, 2000).                                                   |  |
|                                 |  | BYER, R.L., "Nonlinear Optics and Solid-state Lasers: 2000," IEEE J. Selected Topics in Quantum Electronics 6(6):911-930 (November/December 2000).                                                                                                  |  |
|                                 |  | COCORULLO, G. et al., "Amorphous silicon waveguides and light modulators for integrated photonics realized by low-temperature plasma-enhanced chemical-vapor deposition," Optics Lett. 21(24):2002-2004 (December 15, 1996).                        |  |
|                                 |  | FRAZAO, O. et al., "EDFA Gain Flattening Using Long-Period Fibre Gratings Based on the Electric Arc Technique," Proc. London Comm. Symp. 2001, London, England, 3 pages (2001).                                                                     |  |
|                                 |  | JOHNSON, J.E. et al., "Monolithically Integrated Semiconductor Optical Amplifier and Electroabsorption Modulator with Dual-Waveguide Spot-Size Converter Input," IEEE J. Selected Topics in Quantum Electronics 6(1):19-25 (January/February 2000). |  |
|                                 |  | KATO, K. & INOUE, Y., "Recent progress on PLC hybrid integration," SPIE 3631:28-36 (1999).                                                                                                                                                          |  |
|                                 |  | KATO, K. & TOHMORI, Y., "PLC Hybrid Integration Technology & Its Application to Photonic Components," IEEE J. Selected Topics in Quantum Electronics 6(1):4-13 (January/February 2000).                                                             |  |
|                                 |  | MASUDA, H. & KAWAI, S., "Wide-band and gain-flattened hybrid fiber amplifier consisting of an EDFA and a multiwavelength pumped raman amplifier," IEEE Photonics Technology Lett. 11(6):647-649 (June, 1999).                                       |  |
|                                 |  | PAN, T. et al., "Planar Er3+-doped aluminosilicate waveguide amplifier with more than 10 dB gain across C-band," Optical Society of America, 3 pages (2000).                                                                                        |  |
|                                 |  | SNOEKS, E. et al., "Cooperative upconversion in erbium-implanted soda-lime silicate glass optical waveguides," J. Opt. Soc. Am. B 12(8):1468-1474 (August, 1995).                                                                                   |  |
|                                 |  | STROHHOFER, C. & POLMAN, A. "Energy transfer to Er3+ in Ag ion-exchanged glass," FOM Institute for Atomic & Molecular Physics, 10 pages (2001).                                                                                                     |  |
|                                 |  | TREICHEL, O. & KIRCHHOFF, V., "The influence of pulsed magnetron sputtering on topography & crystallinity of TiO2 films on glass," Surface & Coatings Technology 123:268-272 (September 19, 1999).                                                  |  |
|                                 |  | Notice of Allowance mailed August 6, 2002, for US Patent No. 6,506,289 (Atty. Docket No. 09140.0002-01).                                                                                                                                            |  |
|                                 |  | Notice of Allowance mailed March 25, 2004, for US Patent No. 6,827,826 (Atty. Docket No. 09140.0002-02).                                                                                                                                            |  |
|                                 |  | Notice of Allowance issued on October 8, 2002, in U.S. Patent No. 6,533,907 (Atty. Docket No. 09140-0004-00).                                                                                                                                       |  |
|                                 |  | Notice of Allowance issued on October 21, 2004, in U.S. Application No. 10/101,492 (Atty. Docket No. 09140-0015-00).                                                                                                                                |  |
|                                 |  | Response to Office Action filed February 17, 2006, in U.S. Application No. 11/100,856 (Atty. Docket No. 09140.0015-01).                                                                                                                             |  |
|                                 |  | Final Office Action mailed June 9, 2006, in U.S. Appl. No. 11/100,856 (Atty. Docket No. 09140.0015-01).                                                                                                                                             |  |
|                                 |  | Response to Office Action filed September 11, 2006, in U.S. Application No. 11/100,856 (Atty. Docket No. 09140.0015-01.)                                                                                                                            |  |
|                                 |  | Office Action mailed December 1, 2006, in U.S. Application No. 11/100,856 (Attorney Docket No. 9140.0015-01).                                                                                                                                       |  |
|                                 |  | Response to Office Action mailed March 1, 2007, in U.S. Application No. 11/100,856 (Attorney Docket No. 9140.0015-01).                                                                                                                              |  |
|                                 |  | Response to Office Action filed June 12, 2006, in U.S. Appl. No. 10/101,863 (Atty. Docket No. 09140.0016-00).                                                                                                                                       |  |
|                                 |  | Office Action mailed September 6, 2006, in U.S. Appl. No. 10/101,863 (Atty. Docket No. 09140.0016-00).                                                                                                                                              |  |

|                    |  |                 |  |
|--------------------|--|-----------------|--|
| Examiner Signature |  | Date Considered |  |
|--------------------|--|-----------------|--|

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

|                                                         |
|---------------------------------------------------------|
| <b>EXPRESS MAIL LABEL NO.</b><br><b>EV 943276912 US</b> |
|---------------------------------------------------------|



IDS Form PTO/SB/08: Substitute for form 1449A/PTO

AUG 09 2007

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

|                        |                     |
|------------------------|---------------------|
| Application Number     | 09/903,081          |
| Filing Date            | July 10, 2001       |
| First Named Inventor   | DEMARAY, Richard E. |
| Art Unit               | 1731                |
| Examiner Name          | HOFFMAN, John M.    |
| Attorney Docket Number | 9140.0014-00        |

Sheet 3 of 3

**NON PATENT LITERATURE DOCUMENTS**

|  |                                                                                                                                              |  |
|--|----------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | Response to Office Action filed February 6, 2007, in U.S. Application No. 10/101,863 (Attorney Docket No. 9140.0016-00).                     |  |
|  | Final Office Action mailed May 2, 2007, in U.S. Appl. No. 10/101,863 (Atty. Docket No. 09140.0016-00).                                       |  |
|  | Response to Office Action filed August 9, 2006, in Application No. 10/954,182 (Attorney Docket No. 9140.0016-01).                            |  |
|  | Office Action mailed October 31, 2006, in Application No. 10/954,182 (Attorney Docket No. 9140.0016-01).                                     |  |
|  | Response to Office Action filed December 6, 2006, in Application No. 10/954,182 (Attorney Docket No. 9140.0016-01).                          |  |
|  | Office Action mailed March 14, 2007, in Application No. 10/954,182 (Attorney Docket No. 9140.0016-01).                                       |  |
|  | Response to Office Action filed March 30, 2007, in Application No. 10/954,182 (Attorney Docket No. 9140.0016-01).                            |  |
|  | Notice of Non-Compliant Amendment mailed April 12, 2007, in Application No. 10/954,182 (Attorney Docket No. 9140.0016-01).                   |  |
|  | Response to Notice of Non-Compliant Amendment filed April 23, 2007, in Application No. 10/954,182 (Attorney Docket No. 9140.0016-01).        |  |
|  | Final Office Action mailed July 24, 2007, in Application No. 10/954,182 (Attorney Docket No. 9140.0016-01).                                  |  |
|  | Preliminary Amendment filed September 16, 2005, in U.S. Application No. 11/228,834 (Attorney Docket No. 9140.0016-02).                       |  |
|  | Supplemental Preliminary Amendment filed February 6, 2007, in U.S. Application No. 11/228,834 (Attorney Docket No. 9140.0016-02).            |  |
|  | Preliminary Amendment filed July 27, 2005, in U.S. Application No. 11/191,643 (Attorney Docket No. 9140.0016-04).                            |  |
|  | Corrected Preliminary Amendment filed September 19, 2005, in U.S. Application No. 11/191,643 (Attorney Docket No. 9140.0016-04).             |  |
|  | Supplemental Preliminary Amendment filed February 6, 2007, in U.S. Application No. 11/191,643 (Attorney Docket No. 9140.0016-04).            |  |
|  | Office Action mailed on March 23, 2006, in U.S. Application No. 10/650,461 (Atty. Docket No. 09140-0025-00).                                 |  |
|  | Response to Office Action filed on July 24, 2006, in U.S. Application No. 10/650,461 (Atty. Docket No. 09140-0025-00).                       |  |
|  | Response to Office Action filed February 20, 2007, in U.S. Application No. 10/650,461 (Attorney Docket No. 9140.0025-00).                    |  |
|  | Office Action mailed March 6, 2007, in U.S. Application No. 10/650,461 (Attorney Docket No. 9140.0025-00).                                   |  |
|  | Response to Office Action filed July 9, 2007, in U.S. Application No. 10/650,461 (Attorney Docket No. 9140.0025-00).                         |  |
|  | Office Action mailed September 22, 2006, from Korean Patent Office in Appl. No. 10-2005-7016055 (Atty. Docket No. 09140.0030-00202)          |  |
|  | Response to Office Action filed November 8, 2006, from Korean Patent Office in Appl. No. 10-2005-7016055 (Atty. Docket No. 09140.0030-00202) |  |

Examiner  
SignatureDate  
Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**EXPRESS MAIL LABEL NO.  
EV 943276912 US**